DIAMOND FORK GROUP-SITE CAMPGROUND ENVIRONMENTAL ASSESSMENT
EXECUTIVE SUMMARY

May 2003

INTRODUCTION

The Spanish Fork Ranger District of the Uinta National Forest (Forest Service) and the Utah Reclamation Mitigation and Conservation Commission (Mitigation Commission) are proposing to construct a group-site campground in Diamond Fork Canyon. An Environmental Assessment of the proposal has been prepared to disclose and inform the public and decision makers of the potential impacts of the action and to involve the public in the decision making process. This document summarizes the findings made in the Environmental Assessment. Your comments on the proposal are requested no later than June 15, 2003. Comments or requests for a full text copy of the EA should be submitted to:

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BACKGROUND

As part of the Diamond Fork System of the Central Utah Project, the Forest Service and Mitigation Commission released an Environmental Assessment (EA) dated September 28, 1998, describing the environmental effects of a proposal to reconstruct the Diamond and Palmyra campgrounds in Diamond Fork. The alternative selected for implementation called for the reconstruction of the campground, yet reduced the campground capacity approximately 33 percent. This reduction in capacity was achieved by removing group-site[1] facilities from the campground and single family campsites from the active floodplain of Diamond Fork Creek. The purpose for the reduction in campground capacity was to minimize impacts on riparian habitats and to maximize the opportunities for stream restoration afforded by the construction of the Diamond Fork Pipeline.[2] The group-site facilities removed from the Diamond/Palmyra campground had a capacity of approximately 330 Persons At One Time (PAOT). Construction of the new campground was completed in October 2000.

[1] A group-site campground is a facility that will accommodate large groups ranging in size from 25 Persons At One Time to 100 PAOT.

[2] The Diamond Fork Pipeline is a 510cfs capacity pipeline constructed to remove CUP project water and a portion of Strawberry Valley Project water from the Diamond Fork Stream channel in order to improve aquatic habitats in Diamond Fork Creek.

The 1998 EA and decision documents of the Forest Service and Mitigation Commission indicated that the group-site facilities removed from the Diamond and Palmyra Campgrounds would be replaced in a more favorable location and that the size and location of the group-site campground would be analyzed in a separate analysis. The purpose of this EA is to analyze and disclose the environmental affects of various group-site campground alternatives.

PURPOSE AND NEED

Since 1984, population in Utah and Salt Lake counties has increased 43 percent (Utah Office of Planning and Budget). Recreation use in Diamond Fork has been increasing at an estimated rate of more than 15 percent per year with approximately 600,000 recreation visitor days (RVD)[3] in 1995 (Diamond Fork Area Assessment, 2000). The completion of the new road associated with the Diamond Fork Pipeline, proximity to growing urban areas along the Wasatch Front and an anticipated improved fishery are all expected to result in an even faster growth rate of recreation use in Diamond Fork.

With the removal of the group-site facilities from the old Diamond and Palmyra campgrounds (approximate capacity 330 PAOT) and the anticipated increase in demand for developed camping, there is a need not only to replace the lost capacity of the group-site facilities but also to provide additional camping opportunties to meet existing and anticipated demand. The Forest Service recognizes that not all of this demand can be met over the long-term; however, there is a need to identify the appropriate location, size and type of group-site facility that can be constructed in Diamond Fork within the limits of resource and fiscal constraints.

While meeting this underlying need to provide group-site facilities, the project must also address the following purposes:

1 The group-site campground should not limit opportunities for stream restoration afforded by the completion of the Diamond Fork Pipeline and reduced flows in Diamond Fork Creek.

2 The group-site campground should not adversely impact riparian resources or opportunities for riparian restoration.

3. The group-site campground should complete the recreation development responsibilities of the Diamond Fork System for developed camping in accordance with the standards and objectives of Central Utah Project Completion Act (CUPCA) and the Uinta Forest Plan.

[3] A recreation visitor day (RVD) is defined as one person spending one 12-hour period of recreation activity on the Forest.

ALTERNATIVES CONSIDERED

Four alternatives were identified for detailed consideration.

The Preferred Alternative (Alternative 4)
Alternative 4 is the **Preferred Alternative.** The group-site campground would be constructed in the vicinity of Monks Hollow located just east of the Monks Hollow trailhead in Diamond Fork. The site currently is used as the staging and spoil area for the Tanner Ridge Tunnel project, a feature of the Diamond Fork System. Much of the staging area is devoid of any vegetation, with some sagebrush, grasses, junipers and forbs. The upper end of the site has a large stockpile of materials removed during the drilling of the Tanner Ridge Tunnel. The site has been substantially disturbed by construction and prior dispersed recreation use. Upon completion of the Tanner Ridge Tunnel project, the site is scheduled to be recontoured, covered with topsoil and planted with native vegetation. Riparian habitat around this site has been protected from tunnel construction activities and is composed of cottonwood and willows.

The Monks Hollow site would include facilities for 475 PAOT. On the north side of Diamond Fork Creek there would be 350 PAOT, including one 100-, and three 75-PAOT units on the north side of Diamond Fork Creek. On the south side of Diamond Fork Creek, three 25-PAOT units would be constructed at the existing Monks Hollow Trailhead and one 75-PAOT unit would be constructed upstream of the existing Monks Hollow trailhead on an upland terrace. There would be approximately five, 2-unit vault toilets, paved access roads and spurs, shade shelters, an information/fee station, interpretive trail and open play area. Water at the Monks Hollow site would be developed at a spring located in Red Hollow and piped to the site.

The 75-PAOT facility constructed on the upland terrace on the south side of Diamond Fork Creek would be a walk-in site, accessed by a new foot-bridge that spans the creek. Parking for campground users would remain on the west side of the creek. An administrative-access road would be constructed from the Monks Hollow trailhead, across Monks Hollow Creek to access the 75-PAOT site. A culvert would be constructed where the access road crosses Monks Hollow Creek. The access road would be used temporarily for construction of the site and permanently for the maintenance of facilities. The reach of Diamond Fork Creek where the foot-bridge is proposed is entrenched and lateral migration is not likely. The abutments for the foot-bridge will be placed as far back from the active channel as possible, limiting the impacts of the bridge. Post and rail fencing would be constructed at the Monks Hollow trailhead to restrict ATV users to the existing ATV trails. The Monks Hollow trail is a designated ATV trail.

The proposed project would be designed in 2003 and construction would be initiated in 2004 or 2005 when the site becomes available.

With the exception of the administrative access road and footbridge, campground features would be constructed out of the 100-year floodplain and riparian area. The administrative access road constructed in the 100-year flooplain and riparian area would not need to be protected from overbank flows and the river would not need to be hardened. Townsend's big-eared bats could be indirectly impacted by increased human activity in the area.

Refer to Figure 1 and Map 1.

Alternative 1: No Action

Under the no action alternative, a group-site facility would not be constructed and the underlying need for the project would not be met.

Alternative 2

The location of this alternative is the lower Diamond Fork Canyon approximately 2 miles from Highway 6. The site is an old floodplain area that was converted to agricultural use early in the century. The site is linear, located between the road and Diamond Fork Creek, and slopes gently from the road to the creek in a series of old flood terraces. An irrigation system exists on the property and reports and records suggest the site was used primarily for alfalfa (*Medicago sativa*) hay production. A single clump of box elder (*Acer negundo*) trees remains on the knoll in the mouth of Lavanger Hollow, and some Basin big sagebrush is found along the fenceline adjacent to the road and in a few other scattered spots.

The group-site facility would encompass approximately 25 acres and would include three 50-PAOT sites, three 75-PAOT sites, and one 100-PAOT site. There would be approximately five, 2-unit vault toilets (or flush toilets if the water source allowed), paved access roads and spurs, shade shelters, a well for a water system, an information/fee station, interpretive trail and open play area. The site would be revegetated with trees and shrubs and would contain an irrigation system. Construction could take place in the fall of 2004.

The construction area would be in an upland site and out of the 100-year floodplain. Impacts on riparian vegetation would be less than 0.1 acre. However, the location has a high potential for regeneration of a riparian forest through cultivation and irrigation that would be precluded in part by the construction of a group-site campground. The site consists of former cultivated fields that were once part of the floodplain and riparian area bordering Diamond Fork Creek. This site is also adjacent to heavily populated Ute ladies' tresses (an endangered species) habitats that could be impacted by having more people in the area. Similarly, the Columbia spotted frog, a species of concern, has been identified near the site and these populations could be indirectly impacted from visitor use. The location is also in close proximity to lands that have been acquired as partial mitigation for impacts on wildlife resulting from the construction of the Central Utah

Project. Increased human use in the area could have an indirect impact on wildlife utilization of the mitigation lands. Refer to Figure 2.

Alternative 3

Under this alternative, facilities are constructed at three separate sites. The environmental affects of construction at all three are analyzed in the Environmental Assessment. However, construction of the facility at two of the three of the sites would be considered as an option if the underlying need for the project would be met with fewer environmental impacts. The three areas are Brimhall, Wanrhodes, and Monks Hollow.

The Brimhall site would be located at the confluence of Brimhall Canyon and Diamond Fork Creek. The areas proposed for development at the mouth of Brimhall Canyon lie in and adjacent to riparian plant communities along both sides of Diamond Fork Creek. The lower edges of the sites are occupied by cottonwood, willow and birch. The site on the south side of the creek is fairly level and sits several feet above the current stream level on an old floodplain surface. It is occupied primarily by seeded upland grasses, grading into sagebrush-grass. There are some pockets of willow on this surface, and a large birch tree, presumably supported by subsurface water.

The site on the north side includes a floodplain surface that is only sparsely vegetated, due to impacts from parking and dispersed camping. The area has been closed to the public for 2-3 years but the vegetation has not recovered, likely due to compacted soils and a loss of seed source. The area is disected by a small intermittent drainage entering from the north, and the access road extending from the main road. The flat floodplain surfaces grade quickly into steeper sagebrush-grass slopes. Cottonwoods and willows grow along the creek.

This site would accommodate one 50-PAOT unit. Parking would be located on the north side of Diamond Fork Creek with facilities on the south side. The parking area and campground would be connected by an existing bridge. Vehicle access across the bridge would be allowed for administrative access only. A water source would not be developed at this site. Water would be available at Diamond Campground.

The site is located partially in the 100-year floodplain and riparian corridor. Clearing of approximately 1.5 acres of riparian vegetation would be required. Diamond Fork Creek would need to be hardened near the campground in order to protect facilities from overbank flows and lateral migration of the river channel. This would limit future stream restoration efforts in this area. Winter roosting habitat for bald eagles would be directly impacted by construction and would be indirectly impacted with increased human use.

The Wanrhodes site would be located about three miles up Wanrhodes road from Diamond Fork. The site is located in a small flat adjacent to the road, which drops steeply to the creek on the west side. The flat is occupied by mountain big sagebrush, but has been seeded in the past to smooth brome and has also been heavily impacted by

dispersed camping resulting in some bare ground and compaction. This is predominantly an upland site, with cottonwoods limited to the streambanks below the site. The site would accommodate up to two 75-PAOT units. The campground would be located between Wanrhodes road and Wanrhodes Creek. A water source would not be developed at this site. Water would be available at Diamond Campground. The construction area would be in an upland site and out of the 100-year floodplain. Impacts on riparian vegetation would be less than 0.1 acre.

The Monks Hollow site is the same as described under preferred alternative. However, only 275 PAOT would be constructed on the north side of Diamond Fork Creek and no new facilities would constructed on the south side of the creek. Facilities on the north side of the creek would consist of one 100-, two 75- and one 25-PAOT units. Water at the Monks Hollow site would be developed at a spring located in Red Hollow and piped to the site.

Refer to Figures 3 and 4

DRIVING ISSUES

Issues of concern relating to the construction of the group-site campground were identified through discussions with the public and coordination with other governmental agencies. These issues were used as a basis for developing and comparing alternatives.

Issue 1. Stream Restoration

There is a potential conflict between the construction of a group-site facility and the restoration of Diamond Fork Creek if facilities are constructed within the active floodplain. Current restoration objectives for Diamond Fork Creek include the following:

- Stream flows that mimic a natural hydrograph forming a stable but dynamic stream and riparian ecosystem.
- Establish a naturally self-sustaining brown and cutthroat trout population.
- Maintain populations of native fish (leatherside chub, longnose dace, mottled sculpin, mountain sucker, redside shiner) in the Diamond Fork drainage.

Issue 2. Impacts on Riparian Habitat

There is a concern that construction of the group-site facility and associated visitor use could have detrimental effects on riparian habitat and associated wildlife species, primarily neotropical migratory birds.

Issue 3. Sensitive, Threatened and Endangered Species

The **Ute ladies'-tresses orchid** (ULT), a threatened species protected under the Endangered Species Act, is found in Diamond Fork. There is a need to protect ULT habitat and plants from both direct (e.g. construction activities) and indirect (e.g.. trampling by campers) impacts associated with the alternatives. Surveys conducted in 1992, 1993, 1994, and 1996 show more than 30 colonies in Diamond Fork, some of which could be impacted by the construction of a group-site campground. Colonies range in population from one individual to over 6,000 and the habitat islands range in size from a few square feet to several thousand square feet. There are also other species of concern found in the project area including the Columbia spotted frog and Townsend's big-eared bat.

In addition to these issues, other criteria were considered in the evaluation of a site include the following:

- Potential impacts to other resources, including big game winter range, other wildlife impacts, visual and cultural resources.
- Soil stability of a site and the potential for increased erosion that would result from construction.
- Adequate size of a location. Approximately 25 acres of level ground is required to efficiently spread out the proposed number of group-sites.
- The ability to establish vegetation where adequate vegetation does not exist.
- Availability of a potable water source that could be used at the campground.
- Proximity of the site to existing access routes.
- Potential hazards, such as the proximity to Diamond Fork Road and whether users would need to cross Diamond Fork Road to get to Diamond Fork Creek. Other hazards were considered such as cliffs, falling rocks, and flooding.

Table 1 below summarizes each of the action alternatives.

Table 1.
Summary of Alternatives

	Alternative 2	Alternative 3 (two or more of the three sites)	Alternative 4 (Preferred Alternative)
Capacity	475 PAOT (1 100-PAOT unit; 3 75-PAOT units; 350-PAOT units)	*Brimhall* ..... 150-PAOT unit *Wanrhodes* ..... 2 75-PAOT units *Monks Hollow* 1100 PAOT-unit, 2 75-PAOT unit, 1 25-PAOT unit 475 PAOT Total	475 PAOT (1100-PAOT unit; 4 75-PAOT units; 3 25-PAOT units)
Safety/Access	One access on east side of Diamond Fork Road.	One access road at Brimhall and Wanrhodes. Two access roads at Monks Hollow.	Three access roads on the east side of Diamond Fork Road. Permanent administrative access road on south side of Diamond Fork Creek.
Restrooms	Five 2-unit vault toilets.	Five 2-unit vault toilets (one at Brimhall, two at Wanrhodes and Monks Hollow).	Five 2-unit vault toilets.
Water Source	Drilling a well and constructing distribution lines to each site.	No water provided at Brimhall or Wanrhodes. Develop spring source, storage at Monks Hollow and constructing distribution lines to each site.	Develop spring source, storage at Monks Hollow and constructing distribution lines to each site.
Other	Interpretive trail, shade pavilions, tables, fire pits, cooking platforms, information/fee station, open play area.	Same as Alternative 2	Same as Alternative 2 plus foot bridge across Diamond Fork Creek upstream of existing Monks Hollow Bridge. Post and rail fencing.
Construction Area Footprint (acres)	Total Construction Area Footprint ..... 25 acres Area occupied by facilities..... 6 Upland Area .....24.9 Riparian ..... <0.1 100-year floodplain ..... 0 Riparian and 100-year floodplain..... 0	***Brimhall*** Total Construction Area Footprint..... 3.07acres Area occupied by facilities ..... 1.5 Upland Area ..... 0.72 Riparian ..... 0.44 100-year floodplain ..... 0.82 Riparian and 100-year floodplain ..... 1.09 ***Wanrhodes*** Total Construction Area Footprint..... 9.6acres Area occupied by facilities ..... 1.7 Upland Area ..... 9.5 Riparian ..... <0.1 100-year floodplain ..... 0 Riparian and 100-year floodplain 0	Total Construction Area Footprint ..... 19.34 acres Area occupied by facilities..... 6.5 Upland Area..... 18.17 Riparian..... 0 100-year floodplain..... 0.73 Riparian and 100-year floodplain..... 0.44

Table 1. Summary of Alternatives			
	Alternative 2	**Alternative 3** (two or more of the three sites)	**Alternative 4** (Preferred Alternative)
		Monks Hollow Total Construction Area Footprint..... 13.65acres Area occupied by facilities ..... 2.8 Upland Area ..... 13.55 Riparian ..... <0.1 100-year floodplain ..... 0 Riparian and 100-year floodplain 0	
Summary of Environmental Affects	Indirect impacts on riparian habitats. Site also has the greatest potential for riparian restoration that would be precluded by construction compared to other alternatives. No affects on stream restoration. Has the greatest potential to impact Ute ladies'-tresses, Columbia spotted frog, and leatherside chub compared to other alternatives. Has the greatest potential for indirect impacts on Central Utah Project Wildlife Mitigation Lands.	***Brimhall*** Located partially in the 100-year floodplain and riparian corridor and has the greatest direct impacts on riparian habitats and future stream restoration efforts compared to other alternatives. Would directly affect winter roosting habitat for bald eagles. ***Wanrhodes*** No affects on stream restoration, riparian, T&E or sensitive species. ***Monks Hollow*** No affects on stream restoration. Indirect impacts on riparian habitats from visitor use. No impacts on T&E species. Indirect impacts on Townsend's big-eared bats possible.	***Monks Hollow*** The administrative access road would be constructed in the 100-year flooplain and riparian area. This feature would not need to be protected from overbank flows and the river would not need to be hardened. Indirect impacts on riparian habitats from visitor use. The reach of Diamond Fork Creek where the foot-bridge is proposed is entrenched and lateral migration is not likely. The abutments for the foot-bridge will be placed as far back from the active channel as possible, limiting the impacts of the bridge. No impacts on T&E species. This alternative has the greatest potential for indirect impacts on Townsend's big-eared bats compared to other alternatives.

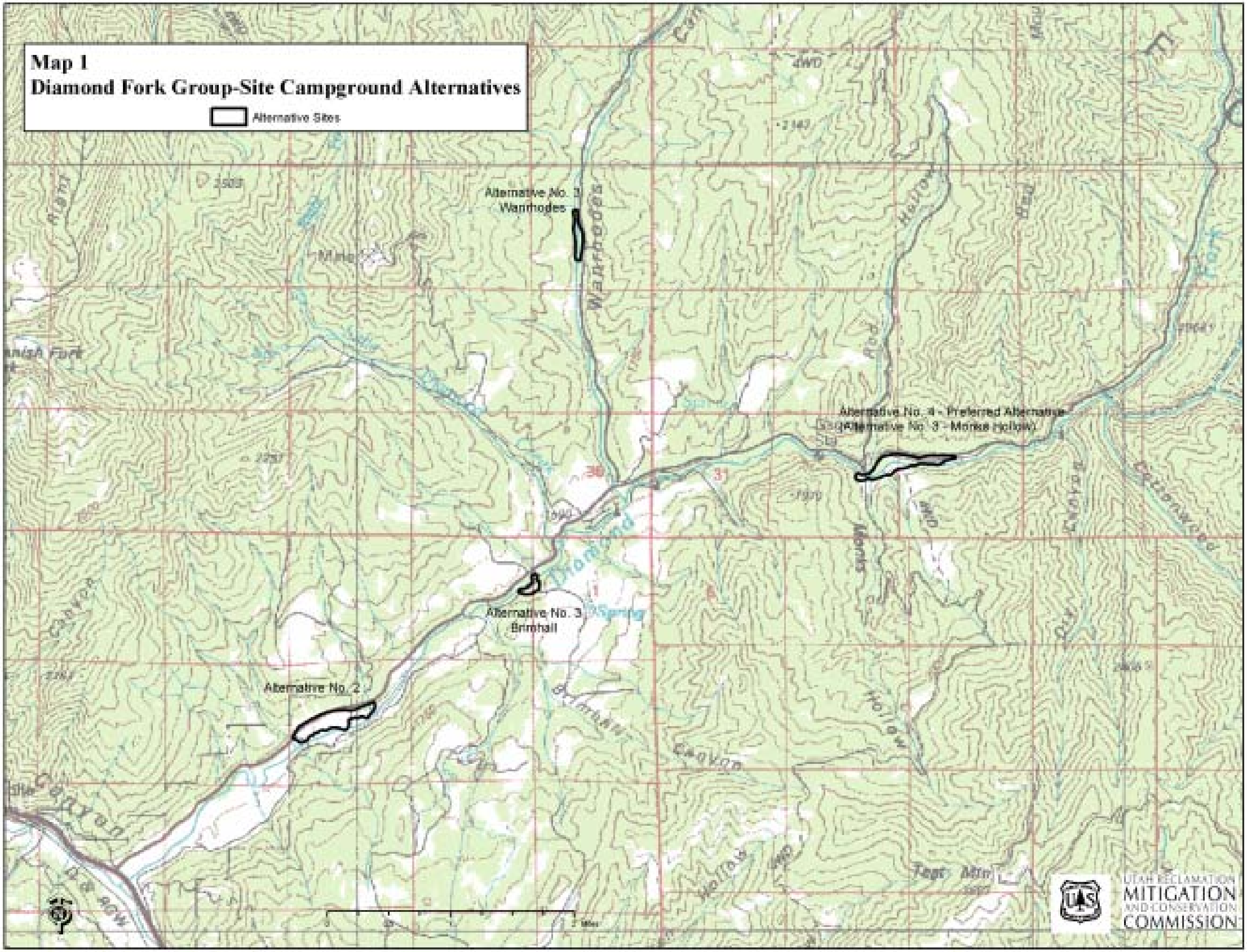
Map 1
Diamond Fork Group-Site Campground Alternatives
Alternative Sites
Alternative No. 3
Wanrhodes
Alternative No. 4 - Preferred Alternative
(Alternative No. 3 - Monks Hollow)
Alternative No. 3
Brimhall
Alternatrve No. 2
Diamond
Spring
Cottonwood
Hollow
Canyon
Monks
MITIGATION
AND CONSERVATION
COMMISSION

Figure 1 Preferred Alternative Site Location

Figure 2 Alternative 2 Site Location

Figure 3 Wanrhodes Site Location

Figure 4 Brimhall Site Location